

WHAT IS CLAIMED IS:

1. A liquid crystal display device, comprising:
 - a lower substrate;
 - an upper substrate opposing the lower substrate;
 - a liquid crystal layer disposed between the lower substrate and the upper substrate; and
 - a reflective layer on an inner surface or an outer surface of the lower substrate;
 - an irregular surface including a plurality of irregularities being formed on the surface of the reflective layer, the irregular surface including at least two types of irregularity groups having different shapes or sizes, each of the irregularity groups having substantially randomly arranged irregularities in plan view, and the irregularity groups being substantially randomly arranged in plan view.
2. A liquid crystal display device, comprising:
 - a lower substrate;
 - an upper substrate opposing the lower substrate;
 - a liquid crystal layer disposed between the lower substrate and the upper substrate; and
 - a reflective layer on an inner surface or an outer surface of the lower substrate;
 - an irregular surface including a plurality of irregularities being formed on the surface of the reflective layer, the irregular surface including irregularity groups each of which has substantially randomly arranged irregularities in plan view, and the irregular surface including a periodically repeating arrangement of irregularities with a plurality of the irregularity groups as a repetition unit.
3. The liquid crystal display device according to Claim 2, the irregularity groups being coplanarly aligned in one direction in the irregular surface to form rows and the planar position of the irregularity groups being shifted with respect to respective adjacent rows.
4. The liquid crystal display device according to Claim 3, the planar shift length between adjacent rows of the irregularity groups being substantially constant.
5. The liquid crystal display device according to Claim 3, the planar shift length between adjacent rows of the irregularity groups being 10% to 40% of the length of a row of the irregularity groups.
6. The liquid crystal display device according to Claim 2, the irregularity groups being aligned in one direction in the irregular surface to form rows and each row including at least two types of irregularity groups having different lengths along the extending direction.

7. The liquid crystal display device according to Claim 6, the irregularity groups having different lengths being randomly arranged in the rows.
8. The liquid crystal display device according to Claim 3, the direction of the rows being substantially parallel to an arrangement direction of pixels of the liquid crystal display device.
9. The liquid crystal display device according to Claim 1, the planar shapes of the irregularity groups being substantially rectangular.
10. The liquid crystal display device according to Claim 9, at least one irregularity being formed at each of the boundaries between the adjacent irregularity groups.
11. The liquid crystal display device according to Claim 1, the planar shapes of the irregularity groups being substantially quadrangular and the shapes of two opposing edges of the irregularity groups are substantially the same.
12. The liquid crystal display device according to Claim 1, the lengths of the irregularity groups being different from a pitch of pixels of the liquid crystal display device in an extending direction.
13. The liquid crystal display device according to Claim 2, the length of the repetition unit of a plurality of the irregularity groups in the direction of the pixels being different from a pitch of the pixels of the liquid crystal display device.
14. A reflector, comprising:
 - a substrate; and
 - a reflective layer formed on the substrate;
 - an irregular surface including a plurality of irregularities being formed on the surface of the reflective layer, the irregular surface including at least two types of irregularity groups having different shapes or sizes, each of the irregularity groups having substantially randomly arranged irregularities in plan view, and the irregularity groups being substantially randomly arranged.
15. A reflector, comprising:
 - a substrate; and
 - a reflective layer formed on the substrate;
 - an irregular surface including a plurality of irregularities being formed on the surface of the reflective layer, the irregular surface including irregularity groups each having substantially randomly arranged irregularities in plan view, and the irregular surface including periodically repeating arrangement of the irregularities with a plurality of the irregularity groups as a repetition unit.

16. An electronic device, comprising:
the liquid crystal display device according to Claim 1.